
NAVFAC IGS-07112 (MAY 2002)

Preparing Activity: LANTNAVFACENGCOM Based on UFGS-07112N

ITALIAN GUIDE SPECIFICATIONS

Use for ITALIAN projects only

SECTION 07112

BITUMINOUS DAMPPROOFING

05/02

NOTE: This guide specification is issued by the
Atlantic Division, Naval Facilities Engineering
Command for regional use in Italy.

NOTE: European technical standards for asphalt are
being developed but it will be several years,
according to the technical committee, before any are
available. For this reason, this specification is
product based. Consult manufacturers' product
literature for product performance in unusual
conditions and product limitations.

NOTE: This guide specification covers the
requirements for bituminous dampproofing and is
intended to be used where protection is required
against ingress of water by capillary action
resulting from occasional exposure to moisture or
where reduced transfer of water vapor through the
surface is necessary. Use of bituminous
dampproofing should be considered for conditions
such as the following:

1. Exterior side of exterior concrete or masonry walls enclosing occupied spaces below grade where a head of water or unusually wet soil conditions are not present (use Section 07121, "Membrane Waterproofing" when head of water exists).
2. Backside of concrete or masonry retaining walls and stone facing where percolating of water through the wall or facing would produce objectionable staining.
3. Inside surface of single wythe, exterior, furred

concrete or masonry walls above grade where reduction of transfer of water vapor through the wall is necessary.

4. Cavity face of interior wythe of masonry cavity walls.

Comments and suggestion on this specification are welcome and should be directed to the technical proponent of the specification. A listing of the technical proponents, including their organization designation and telephone number, is on the Internet.

Use of electronic communication is encouraged.

Brackets are used in the text to indicate designer choices or locations where text must be supplied by the designer.

PART 1 GENERAL

1.1 SUBMITTALS

NOTE: Submittals must be limited to those necessary for adequate quality control. The importance of an item in the project should be one of the primary factors in determining if a submittal for the item is required.

A "G" following a submittal item indicates that the submittal requires Government approval. Some submittals are already marked with a "G". Only delete an existing "G" if the submittal item is not complex and can be reviewed through the Contractor's Quality Control system. Only add a "G" if the submittal is sufficiently important or complex in context of the project.

For submittals requiring Government approval on Army projects, a code of up to three characters within the submittal tags may be used following the "G" designation to indicate the approving authority. Recommended codes for Army projects are "RE" for Resident Engineer approval, "ED" for Engineering approval, and "AE" for Architect-Engineer approval. Codes following the "G" typically are not used for Navy projects.

Submittal items not designated with a "G" are considered as being for information only for Army

projects and for Contractor Quality Control approval
for Navy projects.

Submit the following in accordance with section entitled "Submittal Procedures."

SD-03 Product Data

Bituminous Primer

[Non-fiberised emulsion]

[Fiberised emulsion]

1.2 DELIVERY AND STORAGE

Deliver materials in sealed containers bearing manufacturer's original labels. Labels shall include date of manufacture, contents of each container, performance standards that apply to the contents and recommended shelf life.

PART 2 PRODUCTS

2.1 BITUMINOUS DAMPROOFING EMULSIONS AND SOLUTIONS

2.1.1 Non-Fiberised Emulsion Requirements

Non-fiberised emulsion with a base of bitumen and synthetic resins.

Color: Black

Specific Gravity: 1050 g/dm³

Vehicle: Water

Coats: Two

First: 0.400 kg/m² (0.400 l/m²)

Second: 1.5 to 2 kg/m² (1.5 to 2 l/m²)

Application: Brush or Spray

2.1.1.1 Available Manufacturers

Products listed below meet the requirements of this specification. Equivalent products by other manufacturers may also be acceptable.

FLUIDIMPER I

Imper Italia S.p.A.

Strada di Lanzo 131

10148 Torino

Tel: 011/228 2711

Fax: 011/226 2332

ASFALVER

Bituver

Balzaretti Modigliano, S.P.A

via Romagnoli, 6

20146 Milano
Tel: 02/42 431
Fax: 02/412 03225

ASFALTI
Asfalti Breitner, S.P.A.
05039 Stroncone
Tel: 0744/60 7345
Fax: 0744/60 7650

2.1.2 Bituminous Primer

2.1.2.1 Bituminous Primer Requirements

Color: Black
Specific Gravity: 980 g/dm³
Coats: Two
First: 0.200 kg/m² (0.200 l/m²)
Application: Brush

2.1.2.2 Available Manufacturers

Products listed below meet the requirements of this specification.
Equivalent products by other manufacturers may also be acceptable.

IMPERTENE PRIMER
Imper Italia S.p.A.
Strada di Lanzo 131
10148 Torino
Tel: 011/228 2711
Fax: 011/226 2332

PRIVER
Bituver
Balzaretti Modigliani, S.P.A.
via Romagnoli, 6
20146 Milano
Tel: 02/42 431
Fax: 02/412 0325

PRIMER
Asfalti Breitner, S.P.A.
05039 Stroncone
Tel: 0744/60 7345
Fax: 0744/60 7650

2.1.3 Fibrous Bituminous Dampproofing Emulsions and Solutions

2.1.3.1 Fibrous Bituminous Dampproofing Requirements

Fiberised emulsion with a base of bitumen and synthetic resins. Emulsion shall be asbestos-free.

Color: Black

Specific Gravity: 1050 g/dm3
Vehicle: Water
Coats: Two
First: 0.400 kg/m2 (0.400 l/m2)
Second: 0.9 kg/m2 (0.9 l/m2)
Application: Brush

2.1.3.2 Available Manufacturers

Products listed below meet the requirements of this specification.
Equivalent products by other manufacturers may also be acceptable.

FLUIDIMPER 44
Imper Italia S.p.A.
10148 Torino
Tel: 011/228 2711
Fax: 011/226 2332

No Product Trade Name
Bituver
Balzaretti Modigliani, S.P.A.
via Romagnoli, 6
20146 Milano
Tel: 02/42 431
Fax: 02/412 0325

No Product Trade Name
Asfalti Breitner, S.P.A.
05039 Stroncone
Tel: 0744/60 7345
Fax: 0744/60 7650

2.2 SURFACE PROTECTION

NOTE: Use these paragraphs only when dampproofed surface against which backfill is to be placed will be exposed for an extended period of time or will be otherwise subjected to physical damage.
Dampproofing material where protective covering is used must be limited to those materials which are applied hot. Heavier felt or mineral-surfaced roofing sheets, fiberboard, or perlite board may be specified as the protective covering where a higher degree of protection is necessary.

2.2.1 Saturated Felt Requirements

Glass or polyester fiber mats impregnated with a thermosetting binder, approximately 2.0 mm thick.

2.2.1.1 Available Manufacturers

Products listed below meet the requirements of this specification.
Equivalent products by other manufacturers may also be acceptable.

No Product Trade Name
Imper Italia S.p.A.
Strada di Lanzo 131
10148 Torino
Tel: 011/228 2711
Fax: 011/226 2332

BITULAN C
Bituver
Balzaretti Modigliani, S.P.A.
via Romagnoli, 6
20146 Milano
Tel: 02/42 431
Fax: 02/412 0325

CARTONFELTRO
Asfalti Breitner, S.P.A.
05039 Stroncone
Tel: 0744/60 7345
Fax: 02/412 0325

CARTONFELTRO
Asfalti Breitner, S.P.A.
05039 Stroncone
Tel: 0744/60 7345
Fax: 0744/60 7650

2.2.2 Protection Board Requirements

Wood fiber board. Fabricated with expanded perlite, glass fibers, asphalt, impregnated wood fibers and additives.

Density: 150 kg/m³
Size: 600 mm x 1200 mm
Thickness: 20 mm
Resistance to compression: 2 N/cm²
Resistance to bending: 4.5 N/cm²

2.2.2.1 Available Manufacturers

Products listed below meet the requirements of this specification.
Equivalent products by other manufacturers may also be acceptable.

PERALIT BOARD-V
Perlite Italian
Alzia Trento, 7
20094 Corsico (MI)
Tel: 02/447 4141
Fax: 02/440 1861

PART 3 EXECUTION

3.1 SURFACE PREPARATION

NOTE: Coordinate the requirements of this paragraph with other applicable sections, to assure that patching of holes and other operations necessary for providing a suitable base for dampproofing are adequately covered. Particular attention should be directed to the concrete section to assure that concrete surfaces to be dampproofed are specified to be cured by water methods.

[Remove or cut form ties and repair all surface defects as required in Section 03300, "Cast-In-place Concrete."] Clean concrete and masonry surfaces to receive dampproofing of foreign matter and loose particles. Apply dampproofing to clean dry surfaces. If test indicates moisture, allow a minimum of 7 additional days after test completion for curing. If moisture still exists, redo test until substrate is dry.

3.2 APPLICATION

NOTE: When cavity walls are to be dampproofed, delete first bracketed requirements and include second bracketed requirements.

[Use either hot-application or cold-application method. Use cold-application method in confined spaces where hot bitumen would be hazardous.] [Prime surfaces to receive bituminous dampproofing unless recommended otherwise by dampproofing materials manufacturer.] Apply dampproofing after priming coat is dry, but prior to any deterioration of primed surface, and when ambient temperature is above 4 degrees C 40 degrees F.

3.2.1 Surface Priming

NOTE: See Note A located at rear of text. When cavity walls are to be dampproofed, delete first bracketed sentence and bracketed reference to asphalt in second sentence.

Prime surfaces to receive [non-fiberised emulsion or] [fibrous emulsion bituminous primer.] Apply primer when ambient temperature is above 4 degrees C 40 degrees F and at rate of approximately four liters per 10 square meters one gallon per 100 square feet, fully covering entire surface to be dampproofed.

3.2.2 Hot-Application Method

**NOTE: When cavity walls are to be dampproofed,
delete this paragraph.**

Apply two mop coats of hot non-fiberised emulsion to surfaces. Apply mop coats uniformly using not less than 9.8 kilograms 20 pounds of non-fiberised emulsion per 10 square meters 100 square feet for each coat. Do not heat emulsion above 232 degrees C 450 degrees F. Have kettlemen in attendance at all times during heating to ensure that maximum temperature specified is not exceeded. Apply hot emulsion and fully bond to primed surface. Provide finished surface that is smooth, lustrous, and impervious to moisture. Recoat dull or porous spots.

3.2.3 Cold-Application Method

**NOTE: When cavity walls are to be dampproofed,
include bracketed requirement.**

Apply two coats of fiberised emulsion to surfaces to be dampproofed. Apply each coat uniformly using not less than four liters one gallon fiberised emulsion per 5 square meters 50 square feet. Apply first coat by brush or spray to provide full bond with primed surface. Brush or spray second coat over thoroughly dry first coat [unless recommended otherwise by dampproofing materials manufacturer]. Provide finished surface that is of uniform thickness and impervious to moisture. Recoat porous areas.

3.3 PROTECTIVE COVERING

Protect dampproofed surfaces against which backfill will be placed with [one layer of 6.8 kilogram 15 pound saturated felt conforming to the requirements specified herein. Use asphalt-saturated felt where the dampproofing material is asphalt. Embed felts in the second coating of bitumen and lap edges and ends not less than 25 mm one inch] [13 mm 1/2 inch thick wood fiberboard or perlite board].

**NOTE: Suggestions for improvement of this
specification will be welcomed using the Navy
"Change Request Forms" subdirectory located in
SPECSINTACT in Jobs or Masters under
"Forms/Documents" directory or DD Form 1426.
Suggestions should be forwarded to:**

**Commanding Officer
Seabee Logistics Center
NAVFAC 15G/CESO 15E
4111 San Pedro Street
Port Hueneme, CA 93043-4410**

FAX: (805) 985-6465/982-5196 or DSN 551-5196

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